The Bridge #11

Newsletter from the Canadian Forest Service, Pacific Forestry Centre

Fall 2003

The Esketemc Reserve Beetle Removal Program

The Esketemc First Nation traditional territory is under attack!

Two years ago, band silviculture contractors reported trees damaged by Douglas-fir beetle and mountain pine beetle on band reserves 9, 13 and 14. Subsequent aerial reconnaissance photos taken by the BC Ministry of Forests estimated that the beetles infested almost 1500 hectares or 18 per cent of the trees on Esketemc Reserve lands in reserves 3, 4, 8, 9, 10, 13 and 14.

The 19 reserves of the Esketemc First Nation (formerly named the Alkali Lake Indian Band) are located on over 3900 hectares of land, about 70 kilometres south of Williams Lake, next to British Columbia's oldest cattle ranch. The reserve lands are home to 700 aboriginal people, with another 177 living nearby.

BC Ministry of Forests district staff, with the assistance of Esketemc First Nation Forest Products Ltd. (EFNFP), the Esketemc First Nation Chief and Council, and forestry department staff, produced a set of maps showing the locations of the mountain pine beetle and Douglas-fir beetle attacks. The Williams Lake Forest District estimated that, after two warm winters, the mountain pine beetle population had progressed to epidemic levels. The situation called for a high priority response.

Field investigations indicated that a small-scale salvage technique would be the best choice to counter the attack. Although the Ministry of Forests had funding for provincial crown land, its budget did not cover any control on reserve lands. The First Nations Forestry Program (FNFP) contributed most of the funding for detection and survey activities. It supported the Esketemc First Nation's effort to manage the mountain pine beetle damage on reserve lands. The EFNFP, a band-owned company, provided additional financial support for materials, office space and project administration.

Fred Robbins inspects a beetle-attacked tree on reserve.

With FNFP support, EFNFP trained five band members in techniques required to stop the beetle attack. They learned how to do everything from identifying and marking the trees to getting a timber permit. The trainees started the Esketemc Beetle Probing Program and were flown over the infected areas to assess the extent of the infestation. The new team was then able to prioritize the problem areas and develop a plan for fieldwork.

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In the short term, the Esketemc Reserve Beetle Program provided excellent forestry training for five band members. It took the first steps necessary to manage the epidemic level of mountain pine beetle and Douglas-fir beetle infestations on reserve lands. In the long term, training and experience provided by this FNFP program will increase employment opportunities for band members in harvesting and silviculture operations, creating the opportunity for them to assist the Ministry of Forests to take similar control measures on provincial crown lands.

Most of all, the program has provided the Esketemc First Nation with experience managing forest resources. "I am excited about what happens next," says Fred Robbins, band member. Robbins is busy writing up a request for the next phase of the project – the actual clean up of infected timber. "Now that some band members are trained to probe for beetles, I would like to put others through a forest technical program to obtain broader forest management experience."

For more information contact Fred Robbins, (250) 440-5611.

First Nations Forestry Program Renewed

Every great tree starts as a seed. In the same sense, every business requires seed funding to get it off the ground. Therefore, the First Nations Forestry Program has been providing seed funding since 1996 to enhance innovative forestry initiatives in First Nations communities in Canada. Recognized for its success in meeting this objective and as an outstanding example of interdepartmental cooperation, the First Nations Forestry Program has been renewed until March 31, 2008.

"During the past seven years, the First Nations Forestry Program has been a very successful Government-First Nations partnership," says Herb Dhaliwal, Minister of Natural Resources Canada. "With the renewal of this program, the Government of Canada can continue to help First Nations communities and workers gain valuable experience in managing our forests."

The First Nations Forestry Program strives to improve economic development in First Nations communities by providing opportunities to enhance their capacity to manage forests, operate and participate in forest-based businesses, and increase cooperation and partnerships. This program also helps First Nations individuals increase their forestry-related knowledge, capabilities and business skills so they can more fully participate in Canada's forest sector.

Funded jointly through Natural Resources Canada, Canadian Forest Service and Indian and Northern Affairs Canada, the First Nations Forestry Program has funded 1326 projects, created more than 74,000 weeks of work and created opportunities for more than 5644 First Nations people to improve their forestry-related skills. Approximately 61 per cent – or 375 of the 612 First Nations communities in Canada have participated in the program. Most of these communities are located in rural and remote areas.

"The forest has always been an integral part of the social, spiritual and cultural lives of First Nations in Canada. One if the goals of the First Nations Forestry Program is to help First Nations communities build an economic base in the forest without

Since 1996, the First Nations Forestry Program has assisted 375 communities gain valuable experience in forestry management.

losing their traditional connection to the land," says Elaine Teske, Director of Programs, Canadian Forest Service, Pacific Forestry Centre and co-chair of the British Columbia First Nations Forestry Program Management Board.

In BC, the First Nations Forestry Program is delivered through a management board composed of a maximum of 12 members who review and approve project proposals. Nine represent First Nations and three represent the Canadian Forest Service, the Department of Indian and Northern Affairs and Northern Development, and the BC Ministry of Forests. Applications are received at the Canadian Forest Service, Pacific Forestry Centre in response to annual call letters that are distributed to all bands and tribal councils as well as interested businesses, organizations and individuals in BC.

"The First Nations Forestry Program has provided a hand to many First Nations communities in strengthening their connection to the forest resources within their traditional territories," says Chief Nathan Matthew of the North Thomson Band, BC. He has been a member of the First Nations Forestry Program Management Board in BC for the last seven years. "The funding has been particularly effective in supporting the necessary planning and training related to forestry initiatives. The program has been well received by First Nations and should definitely be strengthened."

Note: Please refer to the last two pages of this newsletter for a listing of the projects approved for 2003/04 by the British Columbia First Nations Program.

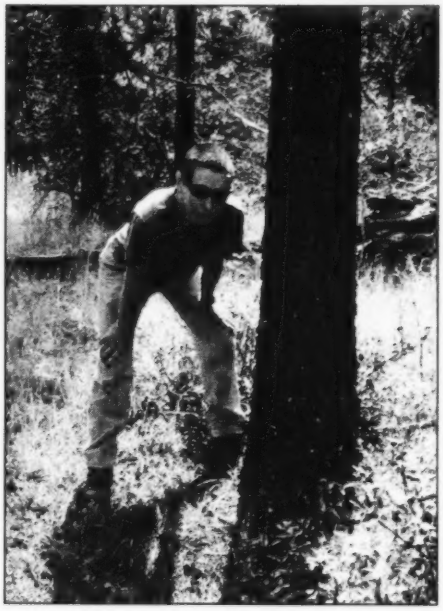
For further information regarding the First Nations Forestry Program in BC, contact Nello Cataldo at ncataldo@pfc.cfs.nrcan.gc.ca

Funding Available to Address the Mountain Pine Beetle Epidemic

Area affected by mountain pine beetle

Assistance is now available to First Nations for early mountain pine beetle control efforts and rehabilitation of mountain pine beetle infested areas on reserve forestlands, under the Mountain Pine Beetle Initiative.

The Mountain Pine Beetle Initiative, led by the Canadian Forest Service's Pacific Forestry Centre, is a five-year $40 million program to address the mountain pine beetle epidemic that has infested over 1.46 million hectares of trees in BC. The Initiative is a partnership of several federal departments, the BC government, national research institutes, First Nations, and industry.



Canadian Forest Service liaison officers are available to provide advice about the program or offer assistance in completing an application form.

The Initiative provides:

- technical and funding assistance to rehabilitate affected federal (including First Nations reserve forestlands) and private forestlands, and
- research to quantify the impacts of the current epidemic and reduce the risk of future epidemics.

Under the First Nations Element of the Initiative, the Canadian Forest Service will contribute up to 80 per cent of eligible costs up to an annual maximum of $60,000 per approved project per year. A maximum of up to 10 per cent may be used for project management and administration and up to five per cent for minor capital items (i.e., field equipment, planting tools, safety gear, etc.) Applicants must contribute at least 20 per cent of the approved eligible costs. This contribution can be in the form of cash or in-kind. Examples of in-kind contributions include labour, supervision, equipment, supplies, office space and materials and management and technical or professional services.

The four beetle management strategies in British Columbia are:

suppression – (aggressive direct control) in very lightly infested areas;

holding – (keeping the outbreak from getting any worse) in areas where the infestations are too large for single tree treatment;

salvage – (harvesting infested trees) in areas where extensive outbreaks have left a high proportion of dead and dying trees; and

monitor – (keeping track) in areas where management efforts would be ineffective in reducing beetle populations.

Implementation requires the assistance of a professional forester to supervise and monitor project activities and treatments, carry out environmental assessments where necessary, and ensure appropriate treatment standards and procedures are followed.

First Nations without a current forest management plan or a mountain pine beetle strategy for their reserve forestlands can apply for assistance to develop a mountain pine beetle management strategy and report for their lands. In most of these cases, a first project proposal to the First Nations Mountain Pine Beetle Element would be to hire a forestry consultant to carry out surveys and prepare the strategy and management report. Subsequent treatments and activities that are proposed should be derived from this management report.

Applications will be accepted on a continuous basis.

For a copy of the Operational Guidelines and Funding Application Form contact:

Heather O'Leary
Natural Resources Canada, Canadian Forest Service
Federal Forestlands Rehabilitation Program
506 West Burnside Road, Victoria, BC V8Z 1M5
Tel: (250) 363-6036, Toll free: 1-888-255-7041
Email: holeary@pfc.cfs.nrcan.gc.ca
Web: mpb.cfs.nrcan.gc.ca

Or contact the Forestry Liaison Officer nearest you:

Prince George, BC
Helena Adamowicz
Tel: (250) 960-5691
Email: headamow@pfc.cfs.nrcan.gc.ca

Kamloops, BC
Maureen Scott
Tel: (250) 371-3949
Email: mascot@pfc.cfs.nrcan.gc.ca

An Introduction to the Mountain Pine Beetle

The tiny mountain pine beetle is a giant among pests. Not much bigger than a grain of rice, to date, beetles have managed to destroy millions of lodgepole pine in British Columbia – the province's most commercially harvested tree. It's estimated this little insect has already infested 108 million cubic metres of trees – 1 ½ times the total amount of trees harvested a year in BC.

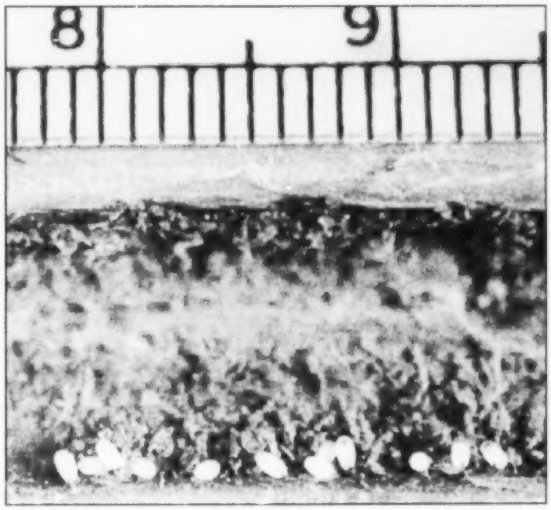
The mountain pine beetle, *Dendroctonus ponderosae*, lives most of its life under the bark of pine trees, including lodgepole, ponderosa and western white pine. Normally these insects play an important role in the life of a forest. They attack old or weakened trees, speeding the development of a younger forest. However, unusual hot, dry summers and mild winters in central British Columbia during the last few years, along with forests filled with mature lodgepole pines, have lead to an epidemic.

The beetle has an interesting life cycle. During late summer, adults leave dead trees and seek out and attack living green trees. They bore through the bark to get at the phloem – the sweet juicy region that carries sugars from the pine needles to tree roots. Here they create galleries for their eggs. Eggs hatch within a few days and larvae mine outwards from the parent gallery girdling the tree.

Adult beetles like to attack large-diameter trees because they provide higher quality food and larval habitat than smaller trees. Also, thicker bark provides greater protection from predators and climatic extremes. However, large-diameter trees in a stand tend to be more vigorous and have a greater capacity to resist attack. As beetles try to bore through the bark of a healthy pine, the tree produces large amounts of resin as a defence. The tree may overcome attacking beetles and literally 'pitch' them out.

The beetles also carry spores of "blue-stain" fungus in their mouths. As they chew on the tree the fungus spills out and begins to shut down the tree's pitch production. The mutual network of beetle galleries and blue-stain fungi disrupts the defences within the tree, quickly killing it.

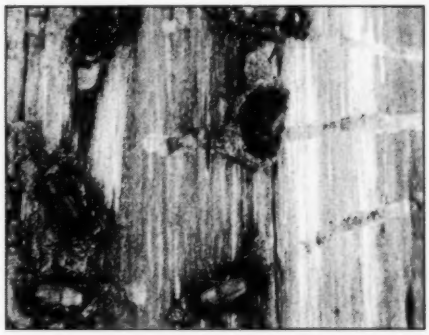
Woodpeckers like to feed on the larvae, but during an epidemic the woodpeckers aren't able to keep the insects under control. The biggest threat to the beetle is the weather; temperatures below – 40°C and sudden cold snaps below – 25°C in early fall or late spring are needed to kill the beetle.



Mountain pine beetle eggs

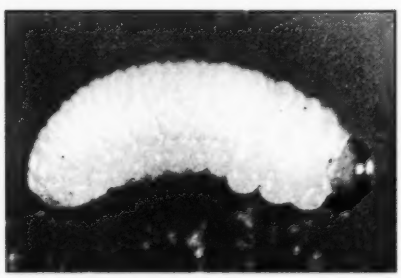
To determine if mountain pine beetle are on your property, you should look for:

- Yellow or red needles on the *entire* tree crown. (Needles fade from green to yellow and then to bright red.)
  Note – discoloration occurs during the year AFTER attack when the beetle has almost completed development. By the time trees appear bright red, the beetles have left to attack new trees.
- Galleries (tunnels beneath the bark) with beetles, eggs or larvae.



Adult beetles

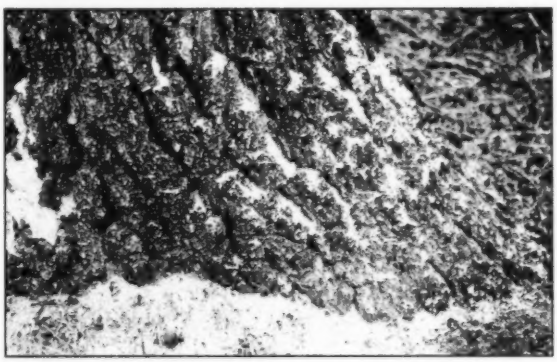
Galleries



Larvae

- "Pitch tubes" -- globs of resin on the trunk where beetles tunnel into the bark.
- "Sawdust" at the base of a tree or in bark crevices.
- Woodpecker activity, such as holes in the trunk and bark chips on the ground.

"Pitch tubes"



Sawdust at the base of the tree

Assistance is available to First Nations for early mountain pine beetle control efforts and rehabilitation of mountain pine beetle infested areas on reserve forestlands.

You can get more information by calling
Natural Resources Canada, Canadian Forest Service,
Pacific Forestry Centre toll free at 1-888-255-7041.
Or, in Kamloops call 250-371-3949.
In Prince George call 250-960-5691.

Information is also available online at the mountain pine beetle research page at:
www.pfc.cfs.nrcan.gc.ca/entomology/mpb

First Nations Forestry Program Project List

(2003/04 Fiscal Year)

Proponent	Community	Project Title	Board Approved $
Alexis Creek Indian Band	Chilanko Forks	Tsi Deldel Sustainable Housing Project	20,900
An Dsap Wilp Society	Prince George	Product Opportunity Identification and Market Development	17,000
Bonaparte Indian Band	Cache Creek	Development of an Ecosystem Approach to Balance the use of Forest Resources with the Conservation and Management of other Forest Values	20,000
Boston Bar First Nation	Boston Bar	Boston Bar Forest Management Planning	25,000
Campbell River Indian Band	Campbell River	Heydon Bay Woodlot Licence #1900	25,000
Canoe Creek Indian Band	Williams lake	Douglas-fir Beetle and Spruce Budworm Management on IR Lands	24,825
Cariboo Tribal Council	Williams Lake	Sustainable Resource Management Plan	25,000
Daylu Dena Council	Lower Post	Training Strategy and Future Employment Opportunities	13,000
Iisaak Forest Resources Ltd.	Ucluelet	First Nations Employment and Training in on TFL #57	25,000
Kitselas Band Council	Terrace	Development of Kitalmkit Forest Products	25,000
Kitsumkalum First Nation	Terrace	Development of Kitalmkit Forest Products	25,000
Kwantlen First Nation	Fort Langley	Kwantlen Forestry Project	25,000
Kwicksutaineuk/Ah'Kwak'Mish First Nation	Campbell River	Forestry Business Planning and Training	25,000
Lhoosk'uz Dene Government	Quesnel	Lhoosk'uz Dene Technical Forestry Services Training Program	21,375
Matsqui First Nation	Matsqui	Matsqui First Nation Timber Harvesting Plan	17,000
Moricetown Band Council	Smithers	Moricetown Band Council Forest Business Expansion	25,000
Nooaitch Indian Band	Merritt	Nooaitch Saw Mill Training and Eagles Nest Marketing Project	25,000
Penelakut Tribe	Chemainus	Penelakut Tribe's Strategic Management Plan	25,000
Saik'uz First Nation	Vanderhoof	Saik'uz First Nation Forestry Training Mentoring Program	23,408
Secwepemc Natural Resources Society	Kamloops	Capacity Building for Secwepemc Natural Resources Education and Training	25,000
Seton Lake Indian Band	Shalalth	Shalalth Lumber	16,750

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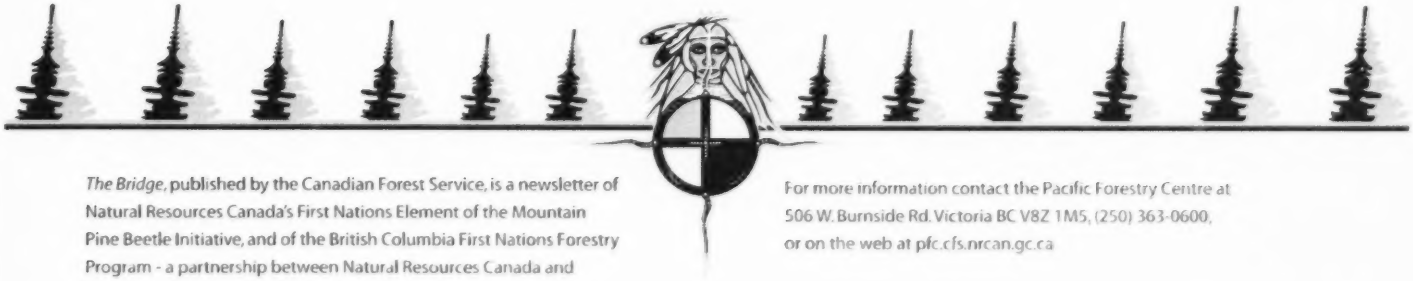
First Nations Forestry Program Project List

(2003/04 Fiscal Year — continued)

Proponent	Community	Project Title	Board Approved $
Shackan Indian Band	Merritt	Shackan Forestry Management Plan	17,000
Skawahlook First Nation	Agassiz	Skawahlook First Nation Sustainable Forest-Based Businesses	25,000
Skin Tyee Development Ltd.	Southbank	Forest Management Training Program	25,000
Squamish Nation	Squamish	Sustainably Manage IR Lands	25,000
Stekyoodenview Contracting	New Hazelton	First Nations Silviculture Training Program	25,000
Taku River Tlingit First Nation	Atlin	Ecosystem Based Management Planning and Capacity Building Project	25,000
The Neskonlith Development Corporation	Chase	Custom Cabinet Making Business Development	20,000
Tlowitsis First Nation	Campbell River	Audit and Update of the 1989 Forest Management and Operating Plan	20,500
Tsilhqot'in National Government	Williams Lake	Land Use Planning Capacity Project	24,600
Tsleil-Waututh First Nation	North Vancouver	Forest Management Planning for Woodlot Licence #1929	25,000
Upper Nicola Band	Merritt	Upper Nicola Band Community Based Sustainable Forestry Plan	25,000
Upper Similkameen Indian Band	Keremeos	Forest Management Plan for USIB Reserves	25,000
Williams Lake Indian Band	Williams Lake	Sugar Cane Wood Products Training Project	17,500
Yekooche First Nation	Prince George	Yekooche First Nation Logging Training Program	25,000

The Bridge newsletter was recently redesigned to reflect the addition of the First Nations Element of the Mountain Pine Beetle Initiative. We hope you like the updated look.



The Bridge, published by the Canadian Forest Service, is a newsletter of Natural Resources Canada's First Nations Element of the Mountain Pine Beetle Initiative, and of the British Columbia First Nations Forestry Program - a partnership between Natural Resources Canada and Indian and Northern Affairs Canada.

For more information contact the Pacific Forestry Centre at 506 W. Burnside Rd. Victoria BC V8Z 1M5, (250) 363-0600, or on the web at pfc.cfs.nrcan.gc.ca

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